

Chapter 9.04
SURFACE WATER RUNOFF POLICY

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1 SECTION 1. Ordinance 9163, Section 2, as amended, and K.C.C. 9.04.020 are
2 each hereby amended to read as follows:

3 **Definitions.** The following definitions shall apply in the interpretation and
4 enforcement of this chapter:

5 A. "Adjustment" means a department approved variation in the application of the
6 requirements of K.C.C. 9.04.050 and the Surface Water Design Manual to a particular
7 project in accordance with K.C.C. 9.04.050C. ~~((The term))~~ "((a))Adjustment" replaces
8 "variance," which had been used in prior editions of the Surface Water Design Manual.

9 B. "Applicant" means a property owner or a public agency or public or private
10 utility ~~((which))~~ that owns a right-of-way or other easement or has been adjudicated the
11 right to such an easement ~~((pursuant to))~~ under RCW 8.12.090, or any person or entity
12 designated or named in writing by the property or easement owner to be the applicant, in an
13 application for a development proposal, permit or approval.

14 C. "Basin" means a ~~((drainage))~~ geographic area ~~((which))~~ that contains and drains
15 to a stream named and noted on common maps or a geographic area that drains ~~((either))~~ to
16 ~~((the Cedar, Green, Snoqualmie, Skykomish or White rivers, or the drainage areas which~~
17 ~~drain directly to Puget Sound))~~ a non-flowing water body, such as a lake or marine area,
18 named and noted on common maps.

19 D. "Basin ~~((P))~~plan" means a plan and all implementing regulations and procedures
20 including, but not limited to, capital projects, public education activities and land use

management adopted by ordinance for managing surface and storm water (~~((management facilities and features))~~) within (~~((individual subbasins))~~) the basin.

E. "Closed depression" means an area (~~((which))~~) that is low-lying and either has no, or such a limited, surface water outlet that during storm events the area acts as a retention basin, with more than five thousand square feet at overflow elevation.

F. "Construct or modify" means to install a new drainage pipe or ditch or make improvements to an existing drainage pipe or ditch (~~((and))~~), for purposes other than (~~((routine))~~) maintenance, (~~((repair or emergency modifications, excluding driveway culverts installed as part of single-family residential building permits))~~) that either serves to concentrate previously unconcentrated surface and storm water runoff, or serves to increase, decrease (~~((and/))~~) or redirect the conveyance of surface and storm water runoff. Construct or modify does not include a driveway culvert installed as part of a single-family residential building permit.

G. "Conveyance system" means the drainage facilities and features, both natural and constructed, (~~((which))~~) that collect, contain and provide for the flow of surface and storm water from the highest points on the land down to a receiving water. The natural elements of the conveyance system include swales and small drainage courses, streams, rivers, lakes and wetlands. The constructed elements of the conveyance system include gutters, ditches, pipes, channels and most flow control and water quality treatment facilities.

H. "Department" means the department of natural resources and parks or its successor organization.

I. "Development" means any activity that requires a permit or approval, including, but not limited to, a building permit, grading permit, shoreline substantial development permit, conditional use permit, special use permit, zoning variance or reclassification, subdivision, short subdivision, urban planned development, binding site plan, site development permit or right-of-way use permit.

J. "Director" means the director of the department of natural resources and parks, or any duly authorized representative of ~~((such))~~ the director.

K. "Drainage" means the collection, conveyance, containment ~~((and/))~~ or discharge, or any combination thereof, of surface and storm water runoff.

L. "Drainage facility" means a constructed or engineered feature that collects, conveys, stores or treats surface and storm water runoff. Drainage facilities shall include, but not be limited to, constructed or engineered streams, pipelines, channels, ditches, gutters, lakes, wetlands, closed depressions, flow control or water quality treatment facilities, erosion and sediment control facilities and other structures and appurtenances that provide for drainage.

M. "Drainage review" means an evaluation by King County staff of a proposed project's compliance with the drainage requirements in the Surface Water Design Manual.

N. "Effective impervious surface" means that portion of the actual impervious surface:

1. from which runoff is not fully dispersed using the dispersion Best Management Practices in the Surface Water Design Manual;

2. that is not fully infiltrated according to the infiltration standards in the Surface Water Design Manual; or

3. that is not managed in an alternative way approved by the department that effectively mitigates all of the following downstream hydrologic effects of the impervious surface: increased runoff peaks, frequencies, volumes and flashiness and decreased groundwater recharge.

Q. "Erosion and sediment control" means any temporary or permanent measures taken to reduce erosion, control siltation and sedimentation and ensure that sediment-laden water does not leave the site.

~~((Q.))~~ P. "Financial guarantee" means a form or financial security posted to do one or more of the following: ensure timely and proper completion of improvements~~((, and))~~; ensure compliance with the King County Code~~((, and))~~; or ~~((to))~~ warranty materials, workmanship of improvements and design. Financial guarantees include assignments of funds, cash deposit, surety bonds and/or other forms of financial security acceptable to the director of the department of development and environmental services. ~~((For the purposes of this chapter, the terms))~~ "((P))Performance guarantee," "maintenance guarantee" and "defect guarantee" are considered sub~~((-))~~categories of financial guarantee.

~~((P.))~~ Q. "Flow control BMP" means a method or design for dispersing, infiltrating, or otherwise reducing or preventing development-related increases in surface and storm water runoff at or near the sources of those increases. Flow control BMPs include, but are not limited to, the following methods and designs applied as specified in the Surface Water Design Manual: preservation and use of native vegetated surfaces to

86 fully disperse runoff; use of other pervious surfaces to disperse runoff; roof downspout
87 infiltration; pervious pavements; rainwater harvesting; vegetated roofs; and reduction of
88 development footprint.

89 R. "Flow control facility" means a drainage facility designed to mitigate the
90 impacts of increased surface and storm water runoff generated by site development
91 ~~((pursuant to))~~ in accordance with the drainage requirements in this chapter. Flow control
92 facilities are designed either to hold water for a considerable length of time and then release
93 it by evaporation, plant transpiration and/or infiltration into the ground or to hold runoff for
94 a short period of time and then release it to the conveyance system.

95 ~~((Q-))~~ S. "Full drainage review" means the basic evaluation required by K.C.C.
96 9.04.030 for any proposed project that:

- 97 1. ~~((Adds five))~~ Would result in two thousand square feet or more of new
98 impervious surface;
- 99 2. ~~((Is located in a landslide hazard drainage area as mapped in the Surface Water~~
100 ~~Design Manual and adds two thousand square feet or more of new impervious surface))~~
101 Would result in thirty-five thousand square feet or more of new pervious surface; ~~((or))~~
- 102 3. Is in the RA Zone and would result in five hundred square feet of new
103 impervious surface; or
- 104 4. Is a redevelopment project ~~((proposing five hundred thousand dollars or more~~
105 ~~of site improvements which creates five thousand square feet or more of contiguous~~
106 ~~pollutant-generating impervious surface through any combination of new and/or replaced~~
107 ~~impervious surface))~~ that is not a transportation redevelopment project in which the total of

new plus replaced impervious surface is five thousand square feet or more and whose valuation of proposed improvements, including interior improvements and excluding required mitigation improvements, exceeds fifty percent of the assessed value of the existing site improvements.

~~((R:))~~ T. "High-use site" means a commercial, industrial or road intersection site that generates a higher than average number of vehicle turnovers or has other characteristics that generate the potential for chronic oil accumulation. High use sites include:

1. Commercial or industrial sites subject to:

- a. an expected daily traffic count greater than one hundred vehicles per one thousand square feet of gross building area;
- b. petroleum storage or transfer in excess of one thousand gallons per year, not including routine fuel oil storage or transfer; or
- c. use, storage or maintenance of a fleet of twenty-five or more diesel vehicles each weighing over ten tons; or

2. Road intersections with average daily traffic counts of twenty-five thousand vehicles or more on the main roadway and fifteen thousand or more vehicles on any intersecting roadway ~~((f))~~, excluding pedestrian or bicycle use improvement projects~~((h))~~.

~~((S:))~~ U. "Hydraulically connected" means connected through surface flow or water features such as wetlands or lakes.

~~((T:))~~ V. "Impervious surface" means either a hard surface area ~~((which))~~ that either prevents or retards the entry of water into the soil mantle as under natural conditions

130 ~~((prior to))~~ before development, ~~((and/))~~ or a hard surface area ~~((which))~~ that causes water
131 to run off the surface in greater quantities or at an increased rate of flow from the flow
132 present under natural conditions prior to development, or both. Common impervious
133 surfaces include, but are not limited to, roofs, walkways, patios, driveways, parking lots,
134 storage areas, areas ~~((which))~~ that are paved, graveled or made of packed or oiled earthen
135 materials or other surfaces ~~((which))~~ that similarly impede the natural infiltration of surface
136 and storm water. Open uncovered flow control or water quality treatment facilities shall
137 not be considered as impervious surfaces.

138 ~~((U.))~~ W. "Improvement" means a permanent man-made physical change to land or
139 real property including, but not limited to, buildings, streets ~~((with or without curbs or~~
140 ~~gutters)))~~, driveways, sidewalks, crosswalks, parking lots, water mains, sanitary and storm
141 sewers, drainage facilities ~~((, street trees))~~ and ~~((other appropriate items))~~ landscaping.

142 X. "Land disturbing activity" means any activity that results in a change in the
143 existing soil cover, both vegetative and nonvegetative, or the existing soil topography.
144 Land disturbing activities include, but are not limited to, demolition, construction,
145 clearing, grading, filling, excavation and compaction. Land disturbing activities do not
146 include tilling conducted as part of agricultural practices, landscape maintenance, or
147 gardening.

148 ~~((V.))~~ Y. "Lake management plan" means a plan describing the lake management
149 recommendations and requirements adopted by public rule for managing water quality
150 within individual lake basins.

151 ~~((W-))~~ Z. "Large site drainage review" means the evaluation required by K.C.C.

152 9.04.030 for any proposed project that:

153 1. Has an urban plan development ((UPD), as defined in K.C.C. 21A.06.1340)

154 land use designation in the King County Comprehensive Plan land use map;

155 2. Would, at full buildout of the project site, result in fifty acres or more of new

156 impervious surface within a drainage subbasin or a number of subbasins hydraulically

157 connected across subbasin boundaries; or

158 3. Is on a site of fifty acres or more within the recharge area of a sole-source

159 aquifer designated by the federal Environmental Protection Agency and depicted as such

160 on the areas highly susceptible to groundwater contamination map adopted as part of the

161 King County Comprehensive Plan.

162 ~~((X-))~~ AA. "Licensed civil engineer" means a person registered with the ~~((S))~~state

163 of Washington as a professional engineer in civil engineering.

164 BB. "Maintenance" means those usual activities taken to prevent a decline, lapse,

165 or cessation in the use of currently serviceable structures, facilities, equipment or systems

166 if there is no expansion of the structure, facilities, equipment or system and there are no

167 significant hydrologic impacts. Maintenance includes the replacement of non-functional

168 facilities and the replacement of existing structures with different types of structures, if

169 the replacement is required to meet current engineering standards or by one or more

170 environmental permits and the functioning characteristics of the original structure are not

171 changed.

172 ((X)) CC. "Master drainage plan" means a comprehensive drainage control plan
173 intended to prevent significant adverse impacts to the natural and constructed drainage
174 system, both on- and off-site.

175 DD.1. "Native vegetated surface" means a surface in which the soil conditions,
176 ground cover and species of vegetation are like those of the original native condition for
177 the site. More specifically, this means:

178 a. the soil is either undisturbed or has been treated according to the native
179 vegetated landscape specifications in the Surface Water Design Manual;

180 b. the ground is either naturally covered with vegetation litter or has been top-
181 dressed with six inches of hog fuel consistent with the native vegetated landscape
182 specifications in the Surface Water Design Manual; and

183 c. the vegetation is either:

184 (1) comprised predominantly of plant species, other than noxious weeds, that
185 are indigenous to the coastal region of the Pacific Northwest and that reasonably could
186 have been expected to naturally occur on the site; or

187 (2) comprised of plant species as specified for a native vegetated landscape in
188 the Surface Water Design Manual.

189 2. For the purposes of this subsection DD, "plant species" include: trees, such
190 as Douglas fir, western hemlock, western red cedar, alder, big-leaf maple and vine maple;
191 shrubs, such as willow, elderberry, salmonberry and salal; and herbaceous plants, such as
192 sword fern, foam flower and fireweed.

EE. "Natural discharge location" means the location where runoff leaves the project site under existing site conditions.

FF. "New impervious surface" means the creation of a hard or compacted surface such as roofs, pavement, gravel, or dirt, or the addition of a more compacted surface such as the paving of existing dirt or gravel.

GG. "New pervious surface" means the conversion of a native vegetated surface to a non-native pervious surface, including, but not limited to, pasture, lawn, landscaped and bare soil surface, or the conversion of pasture to a lawn, landscaped, or bare soil surface.

HH. "Pasture" means a pervious surface that:

1. does not meet the definition of native vegetated surface;
2. is not a grass-covered surface that is intended to be regularly mowed, such as lawn;
3. is not bare soil; and
4. is not a maintained landscape area.

~~((Z.))~~ II. "Pollution-generating impervious surface" means an impervious surface considered to be a significant source of pollutants in surface and storm water runoff. Such surfaces include those subject to vehicular use or storage of erodible or leachable materials, wastes or chemicals and ~~((which))~~ that receive direct rainfall or the run-on or blow-in of rainfall. Thus, a covered parking area would be included if runoff from uphill could regularly run through it or if rainfall could regularly blow in and wet the pavement surface.

Metal roofs are also considered pollution-generating impervious surface unless they are treated to prevent leaching.

~~((AA.))~~ JJ. "Pollution-generating pervious surface" means a nonimpervious surface ~~((with vegetative ground cover))~~ subject to use of pesticides and fertilizers or loss of soil. ~~((Such))~~ Pollution-generating pervious surfaces include, but are not limited to, the lawn and landscaped areas of residential or commercial sites, golf courses, parks, ~~((and))~~ sports fields and county-standard grassed modular grid pavement.

~~((BB.))~~ KK. "Preapplication" means ~~((either))~~ the meeting ~~((or meetings))~~ or form ~~((or forms, or both,))~~ used by an applicant~~((s))~~ for ~~((some))~~ a development permit~~((s))~~ to present initial project intentions to the department of development and environmental services~~((or its successor agency))~~. Preapplication does not mean application.

~~((CC.))~~ LL. "Project" means any proposed action to alter or develop a site ~~((which))~~ that may also require drainage review.

~~((DD.))~~ MM. "Project site" means the portion of a site subject to proposed project activities, alterations and improvements including those required by this chapter.

~~((EE.))~~ NN. "Redevelopment project" means a project that proposes to add, replace ~~((and/or alter))~~ or modify impervious surface for purposes other than a residential subdivision or ~~((routine))~~ maintenance~~((, resurfacing, regrading, or repair))~~ on a site that:

1. is already substantially developed as currently zoned or as a legal non-conforming use; or

2. has an existing impervious surface coverage of ~~(())~~ thirty-five percent or more ~~((existing impervious surface coverage))~~.

236 OO. "Replaced impervious surface" means an existing impervious surface
237 proposed to be removed and re-established as impervious surface, excluding impervious
238 surface removed for the sole purpose of installing utilities or performing maintenance.
239 For purposes of this definition, "removed" means the removal of buildings down to bare
240 soil or the removal of Portland cement concrete slabs or pavement or asphaltic concrete
241 pavement together with any asphalt treated base.

242 ~~((FF.))~~ PP. "Runoff" means water originating from rainfall and other precipitation
243 that is found in drainage facilities, rivers, streams, springs, seeps, ponds, lakes and wetlands
244 as well as shallow ground water.

245 QQ. "Salmon conservation plan" means a plan and all implementing regulations
246 and procedures including, but not limited to, land use management adopted by ordinance,
247 capital projects, public education activities and enforcement programs for conservation and
248 recovery of salmon within a water resource inventory area designated by the state under
249 WAC 173-500-040.

250 ~~((GG.))~~ PP. "Shared facility" means a drainage facility designed to meet one or
251 more of the requirements of K.C.C. 9.04.050 for two or more separate projects contained
252 within a basin ~~((as defined in K.C.C. 9.04.020)).~~ Shared facilities usually include shared
253 financial commitments for those drainage facilities.

254 ~~((HH.))~~ PP. "Small site drainage review" means a simplified alternative to full
255 drainage review ~~((required by K.C.C. 9.04.030 allowed))~~ for a proposed single-family
256 residential project~~((s))~~ that ~~((adds))~~ would result in ten thousand square feet or less of
257 ~~((new))~~ total impervious surface added on or after January 8, 2001.

258 ~~((H.))~~ RR. "Site" means the legal boundaries of the parcel or parcels of land for
259 which an applicant has or should have applied for authority from King County to carry out
260 a development activity including any drainage improvements required by this chapter. For
261 projects or portions of projects within dedicated rights-of-way, site includes the entire
262 width of right-of-way subject to improvements proposed by the project.

263 SS. "Stormwater compliance plan" means a plan or study and all implementing
264 regulations and procedures including, but not limited to, capital projects, public education
265 activities, and enforcement programs for managing stormwater quantity and quality
266 discharged from the county's municipal separate storm sewer system in compliance with
267 the National Pollutant Discharge Elimination System permit program under the Clean
268 Water Act.

269 ~~((H.))~~ TT. "Subbasin" means a ~~((drainage))~~ geographic area ~~((which))~~ that drains to
270 a ~~((water course))~~ stream or water body named and noted on common maps and ~~((which))~~
271 that is contained within ~~((a))~~ the basin of the stream or water body~~((as defined in K.C.C.~~
272 ~~9.04.020))~~.

273 ~~((K.))~~ UU. "Surface and storm water" means water originating from rainfall and
274 other precipitation that is found in drainage facilities, rivers, streams, springs, seeps, ponds,
275 lakes and wetlands as well as shallow ground water.

276 ~~((H.))~~ VV. "Surface Water Design Manual" means the manual ~~((t))~~, and
277 supporting documents as appropriate~~((t))~~, describing surface and storm water design and
278 analysis requirements, procedures and guidance ~~((which))~~ that has been formally adopted
279 by rule under the procedures ~~((specified))~~ in K.C.C. chapter 2.98. The Surface Water

Design Manual is available from the department of development and environmental services or the department of natural resources and parks, water and land resources division or their successor agencies.

~~((MM.))~~ WW. "Targeted drainage review" means an abbreviated evaluation required by K.C.C. 9.04.030 for certain types of proposed projects ~~((which))~~ that are not subject to full or large site drainage review. Targeted drainage review may be required for some projects in small site drainage review.

XX. "Transportation redevelopment project" means a project that proposes to add, replace or modify impervious surface, for purposes other than maintenance, within a length of dedicated public or private road right-of-way that has an existing impervious surface coverage of thirty-five percent or more.

~~((NN.))~~ YY. "Water quality treatment facility" means a drainage facility designed to reduce pollutants once they are already contained in surface and storm water runoff. Water quality treatment facilities are the structural component of best management practices~~((((BMPs)))~~). When used singly or in combination, water quality facilities reduce the potential for contamination of surface and/or ground waters. (Ord. 14199 § 128, 2001: Ord. 13191 § 1, 1998: Ord. 12196 § 1, 1996: Ord. 12020 § 37, 1995: Ord. 11700 § 1, 1995: Ord. 11615 § 2, 1994: Ord. 9163 § 2, 1989).

SECTION 2. Ordinance 9163, Section 3, as amended, and K.C.C. 9.04.030 are each hereby amended to read as follows:

Drainage review – when required -- type.

- 301 A. ~~((When required:))~~ A drainage review is required when any proposed project
302 is subject to a King County development permit or approval and:
- 303 1. Would ~~((add five))~~ result in two thousand square feet or more of new
304 impervious surface;
- 305 2. Is in the RA Zone and would result in five hundred square feet of new
306 impervious surface;
- 307 3. Would involve seven thousand square feet or more of land disturbing activity;
- 308 4. Would construct or modify a drainage pipe/ditch that is twelve inches or
309 more in size or depth or receives surface and storm water runoff from a drainage
310 pipe/ditch that is twelve inches or more in size or depth;
- 311 ~~((3.))~~ 5. Contains or ~~((be))~~ is adjacent to a floodplain, stream, lake, wetland or
312 closed depression, or a ~~((sensitive))~~ critical area as defined in K.C.C. chapter 21A.24,
313 excluding seismic, coal mine~~((s))~~ and volcanic hazard areas.
- 314 ~~((5.))~~ 6. Is located within a critical drainage area;
- 315 ~~((6. Is located within a rural zoned area subject to area clearing limits under
316 K.C.C. 16.82.150C and would clear more than seven thousand square feet or thirty-five
317 percent of the site, whichever is greater;))~~
- 318 7. Is a redevelopment project proposing one hundred thousand dollars or more
319 of improvements to an existing high-use site; ~~((or))~~
- 320 8. Is a redevelopment project ~~((proposing five hundred thousand dollars or more
321 of site improvements and would create five thousand square feet or more of contiguous
322 pollution-generating impervious surface through any combination of new and/or replaced~~

~~impervious surface))~~ that is not a transportation redevelopment project, in which the total of new plus replaced impervious surface is five thousand square feet or more and whose valuation of proposed improvements, including interior improvements and excluding required mitigation improvements, exceeds fifty percent of the assessed value of the existing site improvements; or

9. Is a transportation redevelopment project in which new impervious surface is five thousand square feet or more and totals fifty percent or more of the existing impervious surface within the project limits.

B. ~~((Type of drainage review.))~~ The drainage review for any proposed project shall be targeted to the scope of the project's size, type of development and potential for impacts to the regional surface water system to facilitate preparation and review of project applications. If drainage review for a proposed project is required by K.C.C. 9.04.030A, the department of development and environmental services shall determine which of the following drainage reviews apply as specified in the Surface Water Design Manual:

1. Small site drainage review;
2. Targeted drainage review;
3. Full drainage review; or
4. Large site drainage review.

(Ord. 13191 § 2, 1998: Ord. 11615 § 4, 1994: Ord. 11016 § 13, 1993: Ord. 9163 § 3, 1989)

SECTION 3. Ordinance 2281, Section 5, as amended, and K.C.C. 9.04.050 are each hereby amended to read as follows:

345 **Drainage review - requirements.**

346 A. (~~Core requirements~~) Every permit or approval application with drainage
347 review required by K.C.C. 9.04.030 must meet each of the following core requirements,
348 which are described in detail in the Surface Water Design Manual(~~(-)~~);

349 1. Core requirement #1: Discharge at the natural location. All surface and storm
350 water runoff from a project shall be discharged at the natural location so as not to be
351 diverted onto, or away from, downstream properties. The manner in which runoff is
352 discharged from the project site shall not create a significant adverse impact to downhill
353 properties or drainage systems as specified in the discharge requirements of the Surface
354 Water Design Manual(~~(-)~~);

355 2. Core requirement #2: Offsite analysis. The initial application submittal for
356 proposed projects shall include an offsite analysis report that assesses potential offsite
357 drainage impacts associated with development of the proposed site and proposes
358 appropriate mitigations to those impacts. This initial submittal shall include, at
359 minimum, a Level One downstream analysis as described in the Surface Water Design
360 Manual. If impacts are identified, the proposed projects shall meet any applicable
361 problem-specific requirements as specified in the Surface Water Design Manual(~~(-)~~);

362 3. Core Requirement #3: Flow control. Proposed projects that would result in
363 two thousand square feet or more, or in RA zones five hundred square feet or more, of
364 new impervious surface or thirty five thousand square feet or more of new pervious
365 surface, or that are redevelopment projects that would result in five thousand square feet
366 or more of new plus replaced impervious surface, shall provide flow control facilities or

flow control BMPs, or both, to ((mitigate)) control ((the increased)) surface and storm
water runoff generated by ((the addition of five thousand square feet or more of)) new
impervious surface((and any related land cover conversion)), new pervious surface,
replaced impervious surface and any existing impervious surface added on or after
January 8, 2001, as specified in the Surface Water Design Manual. ((These)) Flow
control ((F)) facilities shall meet the area-specific flow control facility requirements and
the flow control facility implementation requirements applicable to the project site as
specified in the Surface Water Design Manual. Flow control BMPs shall be applied as
specified in the Surface Water Design Manual. Projects subject to area-specific flow
control facility requirements shall meet one of the flow control facility performance
criteria listed ((below)) in a. through c. of this subsection A.3, as directed by the Surface
Water Design Manual:

a. Level One((:)) shall match the predeveloped site's peak discharge rates for
the two-year and ten-year return periods;

b. Level Two((:)) shall meet Level One criteria and also match the
predeveloped site's discharge durations for the predeveloped peak discharge rates
between the fifty percent of the two-year peak flow through the fifty-year peak flow; or

c. Level Three((:)) shall meet Level Two criteria and also match the
predeveloped site's peak discharge rate for the one hundred-year return period((-));

4. Core requirement #4: Conveyance system. All engineered conveyance
system elements for proposed projects shall be analyzed, designed and constructed to
provide the minimum level of protection against overtopping, flooding, erosion and

structural failure as specified by the conveyance requirements for new and existing systems and conveyance implementation requirements described in the Surface Water Design Manual((-));

5. Core requirement #5: Erosion and sediment plan. All proposed projects that will clear, grade, or otherwise disturb the site shall provide erosion and sediment control ~~((ESC))~~ that prevents, to the maximum extent ~~((possible))~~ practicable, the transport of sediment from the site to drainage facilities, water resources and adjacent properties. Erosion and sediment controls shall be applied in accordance with K.C.C. chapter 16.82 as specified by the temporary ~~((ESC))~~ erosion and sediment control measures and performance criteria and implementation requirements in the King County erosion and sediment control standards((-);

6. Core requirement #6: Maintenance and operation. Maintenance of all drainage facilities in compliance with King County maintenance standards is the responsibility of the applicant/property owner as described in the Surface Water Design Manual, except those facilities for which King County is granted an easement or covenant and assumes maintenance and operation as described in the Surface Water Design Manual((-);

7. Core requirement #7: Financial guarantees and liability. All drainage facilities constructed or modified for projects, except downspout infiltration and dispersion systems for single family residential lots, must comply with the liability requirements of K.C.C. 9.04.100 and the financial guarantee requirements of K.C.C. Title 27A((-); and

411 8. Core requirement #8: Water quality. Proposed projects that would result in
 412 five thousand square feet or more of new pollution generating impervious surface or
 413 thirty five thousand square feet or more of new pollution-generating pervious surface, or
 414 that are redevelopment projects that would result in five thousand square feet or more of
 415 new plus replaced pollution generating impervious surface, shall provide water quality
 416 treatment facilities to treat polluted surface and storm water runoff generated by ~~((the~~
 417 ~~addition and/or replacement of five thousand square feet or more of))~~ new or replaced
 418 pollution-generating impervious surface, ((or one acre or more of pollutant)) new
 419 pollution generating pervious surface and any existing pollution generating impervious
 420 surface added on or after January 8, 2001, as specified in the Surface Water Design
 421 Manual. ~~((h))~~ However, pervious surfaces are specifically excluded if there is a good
 422 faith agreement with the King Conservation District to implement a farm management
 423 plan for agricultural uses, and pervious areas for other uses are specifically excluded if
 424 King County department of development and environmental services approves a
 425 landscape management plan that controls pesticides and fertilizers leaving the site. These
 426 facilities shall meet the area-specific water quality treatment requirements and the water
 427 quality implementation requirements applicable to the project site as specified in the
 428 Surface Water Design Manual. ~~((At a minimum, t))~~ The facilities ~~((shall reduce))~~
 429 specified by these requirements are designed to reduce pollutant loads ((by meeting))
 430 according to the applicable annual average performance goals listed ((below)) in a
 431 through d. of this subsection A.8 for ninety-five percent of the annual average runoff
 432 volume:

- 433 a. for basic water quality: remove eighty percent of the total suspended solids;
- 434 b. for ~~((sensitive lake))~~ resource stream protection: remove fifty percent of the
- 435 total ~~((phosphorus))~~ zinc;
- 436 c. for ~~((resource stream))~~ sensitive lake protection: remove fifty percent of the
- 437 total ~~((zinc))~~ phosphorus; and
- 438 d. for sphagnum bog protection: remove fifty percent of the total phosphorus
- 439 and forty percent of the total nitrate plus nitrite. The discharge shall maintain a pH of
- 440 less than 6.5 and an alkalinity of less than ten milligrams per liter.
- 441 B. ~~((Special Requirements.))~~ Every proposed project required by K.C.C. 9.04.030
- 442 to have drainage review shall meet any of the following special requirements, which
- 443 apply to the site and which are described in detail in the Surface Water Design Manual.
- 444 The department of development and environmental services shall verify if a proposed
- 445 project is subject to and meets any of the following special requirements.
- 446 1. Special Requirement #1: Other adopted area-specific requirements. If a
- 447 proposed project is in a designated critical drainage area, or is in an area included in an
- 448 adopted master drainage plan, basin plan, salmon conservation plan, stormwater
- 449 compliance plan, lake management plan or shared facility plan, then the proposed project
- 450 shall meet the applicable drainage requirements of the critical drainage area, master
- 451 drainage plan, basin plan, salmon conservation plan, stormwater compliance plan, lake
- 452 management plan or shared facility plan~~((:))~~;
- 453 2. Special Requirement #2: Floodplain/floodway delineation. If a proposed
- 454 project contains or is adjacent to a stream, lake, wetland or closed depression, or if other

King County regulations require study of flood hazards, then the one hundred year floodplain boundaries ~~((f))~~₂ and floodway if available or if improvements are proposed within the one hundred year floodplain~~((f))~~₂, based on an approved flood hazard study as described in the Surface Water Design Manual, shall be delineated on the site improvement plans and profiles, and on any final subdivision maps prepared for the proposed project~~((f))~~₂;

3. Special Requirement #3: Flood protection facilities. If a proposed project contains or is adjacent to a ~~((Class 1 or 2))~~ stream that has an existing flood protection facility ~~((f))~~₂ such as levees, revetments and berms~~((f))~~₂, or proposes to construct a new, or modify an existing, flood protection facility, then the flood protection facilities shall be analyzed and/or designed as specified in the Surface Water Design Manual to conform with the Federal Emergency Management Administration regulations (44 C.F.R.)~~((f))~~₂;

4. Special Requirement #4: Source Control. If a proposed project requires a commercial building or commercial site development permit, then water quality source controls shall be applied to prevent rainfall and runoff from coming into contact with pollutants to the maximum extent ~~((possible))~~ practicable. Water quality source controls shall be applied in accordance with K.C.C. chapter 9.12 and the King County stormwater pollution control manual. All structural source controls shall be identified on the site improvement plans and profiles or final maps prepared for the proposed project~~((f))~~₂; or

5. Special Requirement #5: Oil control. If a proposed project is a high-use site or is a redevelopment project proposing ~~(((\$100,000))~~ one hundred thousand dollars or more of improvements to an existing high-use site, then oil control shall be applied to all

477 runoff from the high-use portion of the site as specified in the Surface Water Design
478 Manual.

479 C. ~~((Adjustment.))~~ 1. An adjustment to the requirements contained in this section
480 ~~((and/))~~ or other requirements in the Surface Water Design Manual may be proposed
481 ~~((provided that))~~. ~~((t))~~ The resulting development shall be subject to all of the remaining
482 terms and conditions of this chapter and ~~((provided that granting))~~ the ~~((variance))~~
483 adjustment shall:

484 a. produce a compensating or comparable result in the public interest, and
485 b. meet this chapter's objectives of safety, function, appearance, environmental
486 protection and maintainability based upon sound engineering judgment.

487 2. If ~~((meeting the provisions of))~~ complying with K.C.C. 9.04.050C.1.a will
488 deny reasonable use of a property, the best practicable alternative shall be obtained as
489 determined by the director of the department of development and environmental services
490 according to the adjustment process defined in the Surface Water Design Manual.

491 3. Requests for adjustments ~~((which may))~~ that might be in conflict with the
492 requirements of any other King County division shall require review and concurrence
493 with that division.

494 4. Requests for adjustments shall be processed in accordance with procedures
495 specified in the Surface Water Design Manual. ~~((Note that the adjustment concept has
496 been termed "variance" in earlier editions of the Surface Water Design Manual.))~~

5. The county may require monitoring of experimental designs and technology or untested applications proposed by the applicant in order to determine compliance with K.C.C. 9.04.050C.1 and the approved plans and conditions.

6. The applicant may appeal an adjustment decision by following the appeal procedures as specified in the Surface Water Design Manual. (Ord. 13191 § 4, 1998: Ord. 12822 § 1, 1997: Ord. 12020 § 38, 1995: Ord. 12001 § 1, 1995: Ord. 11615 § 5, 1994: Ord. 10570 § 1, 1992: Ord. 9163 § 5, 1989: Ord. 7817 § 2, 1986: Ord. 4938 § 5, 1980: Ord. 2812 § 3, 1976: Ord. 2281 § 5, 1975).

NEW SECTION. SECTION 4. There is hereby added to K.C.C 9.04 a new section to read as follows:

Effective impervious surface limit.. A. On RA zoned parcels, effective impervious surface shall not exceed ten percent.

B. For purposes of calculating the amount of effective impervious surface, runoff from an impervious surface is considered to be fully dispersed if the following conditions are met:

1. The runoff is dispersed as specified in the Surface Water Design Manual through at least one hundred feet of native vegetated surface on a slope of fifteen percent or less before leaving the site or entering an existing onsite drainage feature, such as a pipe, ditch, stream, river, pond, lake or wetland;

2. The amount of impervious surface being fully dispersed does not exceed fifteen percent of the area of native vegetated surface on the site, excluding areas of

518 native vegetated surface occupied by and within fifty feet of a septic drainfield and
519 drainfield reserve area; and

520 3. The dispersion of runoff does not create erosion or flooding impacts as
521 determined by the department.

522 C. For the purposes of the calculations in subsections A and B of this section, the
523 area of actual impervious surface may be adjusted to exclude county-standard grassed
524 modular grid pavement and other pervious-like surfaces, such as playfields, in
525 accordance with the Surface Water Design Manual.